

SAB COVID-19 Review Panel

Biographies

Michael Honeycutt, Chair

Dr. Michael E. Honeycutt is the director of the Toxicology Division of the Texas Commission on Environmental Quality (TCEQ). He has been employed by the TCEQ since 1996 and has managed the division of 14 toxicologists since 2003. His responsibilities include overseeing health effects reviews of air permit applications, overseeing the review of the results of ambient air monitoring projects, and overseeing the reviews of human health risk assessments for hazardous waste sites. Dr. Honeycutt spearheaded the updating of TCEQ's Effects Screening Levels (ESLs), or toxicity factors for chemicals (<http://www.tceq.texas.gov/toxicology/esl/guidelines/about.html>). He has a strong technical background and research interest in hazard identification, dose-response assessment, dose-dependent transitions in mode of action and toxicity, inhalation dosimetry, inter- and intra-species differences in toxicokinetics and toxicodynamics, high-dose to low-dose extrapolation issues, and weight-of-evidence evaluations. Dr. Honeycutt serves as a technical resource for TCEQ management and staff on issues concerning air and water quality, drinking water contamination, soil contamination, and emergency response. He has extensive knowledge on state and federal permitting, remediation, and risk assessment issues. He also serves as an expert witness in public and state legislative hearings, participates in public meetings, and has conducted hundreds of media interviews. Dr. Honeycutt is an adjunct professor in two departments at Texas A&M University, has published numerous articles in the peer-reviewed literature, serves or has served on numerous external scientific committees, and has provided invited testimony at Congressional hearings. He earned both a B.S. and a Ph.D. in Toxicology from the University of Louisiana at Monroe. His research for the past two years was funded entirely by the State of Texas.

Craig Adams

Dr. Craig D. Adams is the Oliver Parks Professor of Engineering in the Department of Civil Engineering at Saint Louis University (SLU). He holds a B.S. in Chemical Engineering, and an M.S. and Ph.D. in Environmental Health Engineering from the University of Kansas. He is a Fellow of the American Society of Civil Engineers and a registered professional engineer. He serves on the American Water Works Association Organic Contaminants Control Committee and Contaminant Candidate List (CCL) Workgroup. He served on the United States of America National Committee (USANC) of the International Water Association (IWA) as Chair from 2014 to 2016, and as Secretary/Treasurer from 2008 to 2014. He serves of faculty advisor/mentor for Engineers Without Borders and other student groups with projects in Kenya, Belize and Honduras. In SLU's Water Quality and Treatment Laboratory, he researches oxidation and sorption processes for drinking water contaminants (including pharmaceuticals, cyanotoxins, taste-and-odor compounds, disinfection byproducts, and others). His research group is focused on fundamental research that is used to develop actionable guidance for utilities in the United States and beyond. He co-authored the Hazen-Adams CyanoTOX software (freely downloadable from the American Water Works Association website) that helps utilities with complex cyanotoxin issues. His recent research is funded by agencies including the Water Research Foundation and the Missouri Department of Natural Resources. His group also focuses on developing point-of-use treatment technology for developing nations. He was the recipient of the Eddy Wastewater Principles and Processes Medal (2008), the ASCE State-of-the-Art Civil Engineering Award (2003), and the ASCE Rudolph Hering Medal (2003), and was a National Science Foundation Young Investigator with research focused on water treatment using advanced oxidation processes. During the past two years Dr. Adams' research has been funded by the Water Research Foundation, American Water Works Association, Missouri University of Science and Technology, and the Missouri Department of Natural Resources.

Hugh A. Barton

Dr. Hugh A. Barton is an independent consultant for applications of systems pharmacology and toxicology to drug discovery and safety evaluation or environmental risk assessment. He provides expert advice on physiologically based pharmacokinetic (PBPK) and pharmacodynamic (PD) models and their implementation for decision-making. Dr. Barton was Associate Research Fellow with Biomedicine Design, Pfizer, Inc. for ten years. His focus in drug discovery was applying translational modeling and simulation to oncology, cardiovascular disease, and neurodegenerative diseases to assess PK, PD, and safety. His pharmacokinetic modeling to support safety evaluation for excipients lead to FDA approval of generic Pfizer docetaxel in 2014. He has more than 25 years of experience in biological modeling with Pfizer, US Environmental Protection Agency and consulting/contract companies, developing computational models for use in biologically based dose-response analyses. Dr. Barton worked in environmental consulting for several years doing site specific risk assessments for hazardous waste sites, air permitting, and other environmental regulatory requirements. He has been adjunct professor at Boston University School of Public Health and in Toxicology at The University of North Carolina at Chapel Hill. He received a B.S. in Life Sciences from the Massachusetts Institute of Technology, Cambridge, MA in 1982 and a Ph.D. in Toxicology from the Department of Applied Biological Sciences at MIT in 1988. Dr. Barton has been President of the Risk Assessment and Biological Modeling Specialty Sections of the Society of Toxicology. He has served as an invited peer-reviewer for organizations including Health Canada, NIEHS, US EPA, NAS/NRC and TERA. He is a member of the US EPA Science Advisory Board's Chemical Assessment Advisory Committee, the Simulations Plus, Inc. Science Advisory Board, and the NRC Committee on Organohalogen Flame Retardants, and a committee reviewing pesticide PBPK models for Versar under contract to US EPA. He previously served on the NRC Committee on Inorganic Arsenic and WHO IPCS PBPK Modeling working group. He is a reviewer for numerous scientific journals and serves on two editorial boards. Dr. Barton has published more than 50 articles in the scientific literature on physiologically based pharmacokinetic and pharmacodynamic modeling and has received awards from Pfizer, EPA and others for that work and its applications in pharmaceutical safety and risk assessment. Dr. Barton's research currently has no research funding.

Deborah Hall Bennett

Dr. Deborah Hall Bennett is currently an Associate Professor of environmental and occupational health at the University California, Davis. She received her Ph.D. and M.S. in Mechanical Engineering from the University of California, Berkeley, and her B.S. in Mechanical Engineering from the University of California, Los Angeles. Dr. Bennett's research focuses on the fate, transport, and exposure of organic compounds chemicals in multi-scale applications, including direct consumer product use, and indoor and outdoor multimedia environments within the context of both environmental epidemiology and environmental risk assessment. Her work utilizes both modeling and measurement techniques, bridging the gap between these two lines of inquiry. She had research funding from the Environmental Protection Agency to conduct modeling of the fate, transport, and resulting exposures from use of consumer products in the indoor environment. The American Chemistry Council is funding efforts for a modeling framework capable of rapidly calculating exposures over a continuum of spatial/temporal scales. She is involved in several projects funded through several NIEHS grants focusing on environmental causes of Autism. She has funding from the California Air Resources Board to evaluate the impact of air filtration interventions on asthma exacerbation, and a separate grant to evaluate ozone forming potential from low volatility compounds in consumer products. She has funding from NIOSH to evaluate heat exposure among farmworker populations, as well as pesticide exposure among landscape workers and farmworkers. She has served on various United States Environmental Protection Agency Science Advisory Boards, Panels, and advisory committees related to the Exposure Factors Handbook, and Exposure Metrics for the National Children's Study. She has served as Estimation Associate Editor for

the Journal of Exposure Science and Environmental Epidemiology. She has served as an Elected Councilor, Treasurer, and Chair of the Awards Committee for the International Society of Exposure assessment. She has received funding from the American Chemistry Council, California Air Resources Board, Environmental Protection Agency, and the National Institute for Environmental Health.

Harvey Clewell

Dr. Harvey J. Clewell is a research scientist with over forty-five years of experience in environmental quality and toxicology research, chemical risk assessment and hazardous materials management. He is currently a Principal Consultant with Ramboll. He received a Masters Degree in Chemistry from Washington University, St. Louis, and a PhD in Toxicology from the University of Utrecht, the Netherlands. He is a Diplomate of the American Board of Toxicology and a Fellow of the Academy of Toxicological Sciences and holds the position of Visiting Scientist at the University of Utrecht in the Netherlands. He has authored more than 200 peer-reviewed scientific publications and a number of book chapters. He has gained an international reputation for his work on the incorporation of mechanistic data and mode of action information into chemical risk assessments, having played a role in the first uses of physiologically based pharmacokinetic (PBPK) modeling in cancer and non-cancer assessments by EPA, ATSDR, OSHA, and FDA. Dr. Clewell has served on external peer review panels for a number of EPA guidelines, including those for cancer risk assessment, risk characterization, benchmark dose modeling, and dermal absorption, and has participated in chemical-specific reviews conducted by the EPA Scientific Advisory Board and the FIFRA Scientific Advisory Panel. He also served as a member of the ECVAM Scientific Advisory Panel from 2012 to 2016. Over the years he has performed research for a wide variety of clients, including the EPA, FDA, NIEHS, ATSDR, Health Canada, TCEQ, ACC, CEFIC, Pfizer, DuPont, Dow Corning, EPRI, NIPERA, Syngenta and Cosmetics Europe. In 2007, the Society of Toxicology recognized Dr. Clewell with the Arnold J. Lehman Award for major contributions to chemical safety and risk assessment.

Alison C. Cullen

Dr. Alison Cullen serves as Associate Dean for Academic Affairs and Professor at the University of Washington Evans School of Public Policy and Governance, with adjunct appointments in the College of the Environment and the School of Public Health. She holds a B.S. in Civil/Environmental Engineering from MIT (1984), and an M.S. (1989) and an Sc.D. in Environmental Health (1992) from Harvard University School of Public Health. Her research involves the analysis of environmental health risks, decision-making in the face of uncertainty, and the application of value of information and distributional techniques. Dr. Cullen is past president of the Society for Risk Analysis and is a 2016 NSF Faculty Fellow in the Advanced Studies Program. Her research is published in numerous peer-reviewed articles and a book with co-author H.C. Frey entitled Probabilistic Techniques in Exposure Assessment: A Handbook for Dealing with Uncertainty and Variability in Models and Inputs. She teaches graduate level courses in quantitative methods and environmental policy, and mentors MPA and Ph.D. students. Dr. Cullen is the recipient of a U.S. EPA Region 10 Special Recognition in the Field of Air Toxics, the Chauncey Starr Award from the Society for Risk Analysis, and the Outstanding Young Scientist Award from the International Society of Exposure Assessment. Outside of academia, Dr. Cullen has served as a technical consultant and advisor to many groups, including the Health Effects Institute, the U.S. Consumer Product Safety Commission, the State of Washington's Department of Ecology, the Sloan Foundation and the Bill and Melinda Gates Foundation. She has also served on the U.S. EPA Science Advisory Board Chemical Assessment Advisory Committee (CAAC 2016 - 2018) and was a member of the U.S. EPA Clean Air Scientific Advisory Committee's augmented panel on Sulfur Dioxide (2014 - 2018). Dr. Cullen's work has been supported by government agencies and non-profit foundations,

including in the past five years the U.S. National Science Foundation, the National Center for Atmospheric Research, Washington State Department of Transportation, the Alfred P. Sloan Foundation, the Bill and Melinda Gates Foundation, and Intellectual Ventures.

Jacqueline Hughes-Oliver

Dr. Jacqueline M. Hughes-Oliver is Professor of Statistics at North Carolina State University (NC State). She earned her PhD in Statistics from NC State in 1991, following a BA in Mathematics from the University of Cincinnati in 1986. After one year at the University of Wisconsin—Madison, Dr. Hughes-Oliver returned to NC State where she transitioned through the usual academic ranks. She has held a visiting appointment at Stanford University, served as Faculty Fellow at the Statistical and Applied Mathematical Sciences Institute (SAMSI), and was Professor of Statistics at George Mason University. From 2005 to 2009, Dr. Hughes-Oliver was Director of the Exploratory Center for Cheminformatics Research at NC State. During her graduate and undergraduate training, Dr. Hughes-Oliver held positions at the National Institute of Environmental Health Sciences and at the Environmental Protection Agency. Dr. Hughes-Oliver has a variety of research interests. Since 2000, her research has been sponsored by a number of agencies, including multiple awards from the National Science Foundation, the North Carolina Department of Transportation, and more recently the National Institutes of Health through the Roadmap Initiative. Her methodological research focuses on prediction and classification, analysis of high-dimensional data, variable and model selection with dimension reduction, design and analysis of pooling or mixture experiments, optimal design, and spatial modeling. Application areas include drug discovery, ontology-driven analysis of microarray studies, metabolomics, point sources, engineering manufacturing and transportation modeling. Her research is motivated by current health-related and environmental issues, and to discover new drugs in an efficient way. Service to the profession includes elected and appointed positions in the American Statistical Association (ASA) and the Eastern North American Region (ENAR) of the Biometrics Society. She has served on review panels for the National Science Foundation and the National Institutes of Health and has been referee for many articles submitted to various professional journals. Some of her awards include the ASA's 2006 Statistics in Chemistry Award, being named a Fellow of the ASA in 2007, and receiving the Blackwell-Tapia Prize in 2014.

Michael Jayjock

Dr. Michael Jayjock is an independent consultant who retired as a Senior Research Fellow from the Rohm and Haas Company where he worked for 35 years. During his employment at Rohm and Haas his responsibilities included development and management of all aspects of exposure assessment and mathematical modeling projects in the service of product safety. He developed interests and expertise in modeling the nature of indoor pollution by experimentally and theoretically characterizing sources and loss mechanisms. Dr. Jayjock has been an active participant on the Exposure Strategies and Risk Assessment Committees of the American Industrial Hygiene Association ; the 2014 U.S. Department of Energy (DOE) Hanford Tank Vapor Assessment Team; the 2013 U.S. Environmental Protection Agency (EPA) peer review panel for the Draft Risk Assessment for Trichloroethylene (TCE)/Degreaser Arts/Crafts Uses; the 2018 U.S. Environmental Protection Agency (EPA) peer review panel for the Draft Exposure and Use Assessment for Five PBT Chemicals; the 2016 U.S. Environmental Protection Agency (EPA) peer review panel for Draft Guidelines for Human Exposure Assessment; the 2011 U.S. Environmental Protection Agency (EPA) Science Advisory Panel on Lead Exposure; the 2008 U.S. Environmental Protection Agency (EPA) Peer Consultation Panel for Perfluorooctanoic Acid (PFOA) Site-Related Environmental Assessment Program; the 2005 U.S. Environmental Protection Agency (EPA) Board of Scientific Councilors Peer Review Panel for the Office of Research and Development Science Program; the 2002 U.S. Environmental Protection Agency (EPA) Human Health Research

Strategy Panel; member of or consultant to the 1998-2003 U.S. Environmental Protection Agency (EPA) Science Advisory Board – Integrated Human Exposure Committee (IHEC). He is not currently a recipient of research grants from the Environmental Protection Agency, other federal agencies, or the private sector.

Wayne Landis

Dr. Wayne Landis is Professor and Director, Institute of Environmental Toxicology Huxley College of the Environment, Western Washington University. He holds a B.A. in Biology from Wake Forest University, (1974), an M.A. in Biology from Indiana University (1978), and a Ph.D. in Zoology from Indiana University (1979). Dr. Landis' areas of expertise and research activities include: environmental toxicology, the effects of toxicants on populations, and ecological risk assessment at large spatial and temporal scales. His research contributions also include: co-development of the Community Conditioning Hypothesis, the use of multivariate analysis in microcosm data analysis, creation of the Action at a Distance Hypothesis for landscape toxicology, the application of complex systems theory to risk assessment, and development of the Relative Risk Model and its Bayesian network derivative for multiple stressor and regional-scale risk assessment. He has also developed specialized methods for calculating risk due to invasive species and emergent diseases. Dr. Landis has authored over 150 peer-reviewed publications and government technical reports, participated in over 400 scientific presentations, edited four books, and wrote the textbook, *Introduction to Environmental Toxicology*, now in its sixth edition. He has consulted for industry; nongovernmental organizations as well as federal (U.S. and Canada), state, provincial, and local governments. Dr. Landis' research has been supported by grants and contracts from federal agencies (U.S. Air Force, Environmental Protection Agency, U.S. Forest Service,), industry (DuPont, Amoco, BP and Teckcominco Ltd.), with additional grant support from state, provincial and local governments, industry, NGOs and foundations. Dr. Landis has served on the American Society of Testing and Materials (ASTM) Committee on Publications overseeing a variety of environmentally related symposia proceedings. He currently serves on the editorial boards of the journal *Risk Analysis* and is Deputy Editor for *Integrated Environmental Assessment and Management*. He is a former ecological risk area editor for *Risk Analysis*. Dr. Landis is a member of the Society of Environmental Toxicology and Chemistry (SETAC) and served on the SETAC Board of Directors from 2000-2003. In 2007 he was named a Fellow of the Society for Risk Analysis and in 2016 a Fellow for the Society for Environmental Toxicology and Chemistry. He has completed his second term on the Science Panel of the Puget Sound Partnership, a state of Washington agency charged with the restoration of Puget Sound. More recently he served on the NASEM panel that resulted in a keystone document on the future of synthetic biology and specifically the use of gene drives "Gene Drives on the Horizon: Advancing Science, Navigating Uncertainty, and Aligning Research with Public Values." He has a broad range of experience with stressors across a range of media, especially in an ecological risk assessment context. He is now beginning a term as a member of the Science Advisory Board Chemical Assessment Advisory Committee.

Mark W. LeChevallier

Dr. Mark LeChevallier is a Principal at Water Consulting, LLC. He was previously Vice President and Chief Science Advisor at American Water, a water utility operating in over 30 states, and Canada. Dr. LeChevallier received his Bachelor of Science and Master Degree in Microbiology from Oregon State University in 1978 and 1980. He worked as a Research Associate at Montana State University where he received his Ph.D. in Microbiology in 1985. Dr. LeChevallier has conducted research on facets of water quality and water system operations that bear on the reliable provision of safe drinking water and emerging topics including reuse of wastewater. He is a recipient of one of the American Water Works

Association's highest honors, the A.P. Black award, for his leadership and contributions to research in the field. He has, over the last three decades been at the leading edge of most of the major water quality policy issues that have surfaced in the United States: Cryptosporidium, distribution system integrity, biofilm harbored pathogens, and more. At American Water, Dr. LeChevallier was engaged in research but also in the application of new information throughout the network of American Water systems. He was responsible for identifying innovative solutions to apply to the business of operating water and wastewater systems. Dr. LeChevallier's research has recently been funded by the Water Research Foundation.

Robert Phalen

Robert F. Phalen, Ph.D. is a Professor of Medicine in the Center for Occupational and Environmental Health at the University of California, Irvine. He is the founding director, and current co-director of the Air Pollution Health Effects Laboratory. He is a member of the graduate program in Environmental Toxicology, now called Environmental Health Science, and he is on the faculty of the Occupational Medicine Residency Program. His research is in several areas: aerosol science, inhalation toxicology, air pollution health effects, modeling the deposition and clearance of inhaled substances, and radiation biology. At San Diego State University his undergraduate major was physics with a minor in mathematics, and his master's degree was in nuclear physics with an emphasis on inhaled nuclear reactor accident particles. At the University of Rochester (NY) School of Medicine and Dentistry, he obtained a Ph.D. in Radiation Biology and Biophysics, with an emphasis in Toxicology. His thesis was a study of inhaled nanosilver particles. His post-doctoral training was at the Lovelace Inhalation Toxicology Research Institute in Albuquerque, NM. He joined the Aerosol Physics group and worked on an NIEHS computer modeling grant on inhaled particles in four mammalian species, including humans. The University of California, Irvine, recruited Dr. Phalen to direct the Air Pollution Health Effects Laboratory, and to establish a research program. The research focused on the effects of air pollution mixtures on lung defenses. He has published over 250 journal papers, chapters, and proceedings papers on his research. Another research interest is in the ethics of laboratory, animal, and human research. He chaired the U.C. Irvine Institutional Review Board (IRB) for seven years, and was a member of the Institutional Animal Care and Use Committee for seven years. His ethics textbook, "Core Ethics for Health Professionals" (Springer International Publisher) was published in August 2017. His current research funding is from an endowment (the Stocking Family Trust). He is an elected fellow of three organizations: the Academy of Toxicological Sciences; the Southern California Academy of Sciences; and the American Association for the Advancement of Science. He is a full member of eight scientific societies and is the chair of the Board of Directors of the California Society for Biomedical Research (CSBR). He has served on review and advisory committees for EPA, NIEHS, CDC/NIOSH, and the National Academy of Sciences (NAS), including the NAS Committee on Controlled Human Inhalation – Exposure Studies at EPA, and on EPA's Clean Air Scientific Advisory Committee – Particulate Material Subcommittee. He has authored and co-authored sixteen books and reports including "Methods in Inhalation Toxicology" (1997); "Introduction to Air Pollution Science" (2011); and "Core Ethics for Health Professionals" (2017). His recent awards include "Career Achievement" (Society of Toxicology – Inhalation Section); and "Public Education" (CSBR). He has chaired and co-chaired several international conferences on human effects of air pollutants; and on modeling inhaled aerosols.

Tara L. Sabo-Attwood

Tara Sabo-Attwood, PhD is an Associate Professor and Chair of the Department of Environmental and Global Health, College of Public Health and Health Professions and Center of Environmental and Human Toxicology at the University of Florida (UF). She has broad expertise in environmental molecular

toxicology with an emphasis on water and airborne contaminants. She earned a B.S. in genetics and Ph.D. in Biomedical Sciences, Pharmacology and Toxicology as a National Institute of Health (NIH) Fellow from UF and was awarded a NIH Postdoctoral Fellowship at the University of Vermont in Pulmonary Pathology. Dr. Sabo-Attwood's research centers on elucidating how pollutants, both historical and emerging (asbestos, endocrine disruptors, nanomaterials) perturb molecular pathways that contribute to adverse health outcomes. Her work encompasses aquatic and mammalian models and spans controlled laboratory approaches and field projects. Her current work focusses on the innate immune system as a target of inhaled or dietary chemical exposure with an emphasis on susceptibility of organisms to pathogenic infections. Based on her contributions she was named a Kavli Fellow in Nanotechnology by the National Academy of Sciences (NAS). Her work is currently funded by the NIH, National Science Foundation (NSF), and the US Department of Agriculture (USDA). In addition to her research contributions, Dr Sabo-Attwood teaches courses in environmental health, one health, toxicology and has trained numerous masters and doctoral students. She serves in several leadership positions including Director of Graduate Programs, Department Chair and elected Councilor for the Nanotoxicology Specialty Section Board for the Society of Toxicology (SOT). She participates on international and national advisory committees including the International Academy of Sciences, routinely participates on Environmental Protection Agency (EPA), NIH, and NSF review panels, is an associate editor for Nano Impact Journal and a long-standing member of Society of Toxicology and Chemistry (SETAC) and SOT.

Richard Sakaji

Although recently retired as Water Quality Manager for the East Bay Municipal Utility District, Dr. Richard Sakaji recently joined the State Water Resources Control Board, Division of Drinking Water to work on a variety of drinking water quality and public health issues. In his former positions, his activities ranged from reviewing and providing guidance on testing or study protocols in the subject areas of treatment technology and invasive species to serving on technical committees that aid in the establishment of drinking water regulations and public policy. To this end he has reviewed technical protocols for U.S. EPA's Environmental Technology Verification program and for the National Sanitation Foundation for their technical merit. His educational background includes marine biological sciences (A.B., University of California, Berkeley), environmental engineering (M.S. and Ph.D., University of California, Berkeley). Throughout his career, he has brought a public health perspective to various advisory committees and workgroups, such as those serving the National Academy of Sciences, the National Water Research Institute, the Water Research Foundation (formerly the American Water Works Association Research Foundation, and the U.S. EPA. He has also represented the California Department of Public Health as a representative on the Santa Ana River Water Quality and Health Study. He has worked with the National Water Research Institute/AWWA Research Foundation in the development of their ultraviolet disinfection guidelines.

Mara Seeley

Dr. Mara Seeley is Chief of the Exposure Assessment Unit within the Environmental Toxicology Program at the Massachusetts Department of Public Health (MDPH) where she evaluates health effects from exposure to contaminants in the environment and consumer products, prepares risk communication material for the general public, and evaluates exposure to radiation associated with nuclear power plant operations. Prior to working at MDPH, Dr. Seeley worked at Gradient, specializing in human health risk assessment, exposure assessment, and regulatory comment. As a senior toxicologist, Dr. Seeley performed critical reviews of animal toxicology and human epidemiology studies, conducted multi-pathway human health risk assessments, developed toxicity criteria and health-based exposure levels, and evaluated exposures for non-standard exposure scenarios. Before joining Gradient, Dr. Seeley studied

health effects of nitrogen dioxide as a National Institute of Environmental Health Sciences research fellow at the University of Washington, conducting controlled human exposure studies and in vitro studies using primary cell cultures of nasal epithelial cells. She has authored or co-authored peer-reviewed articles and book chapters on a variety of topics, including risk assessment, health effects of environmental contaminants, endocrine disruption, and developmental toxicity. Dr. Seeley has served on two committees at the Institute of Medicine; as an officer of the Society of Toxicology's (SOT) Nanotoxicology, and Ethical, Legal and Social Issues Specialty Sections; and as an invited participant at an SOT education summit. She received her B.A. from Wellesley College (cum laude), and both her M.S. in environmental engineering and science and Ph.D. in environmental health and toxicology from the University of Washington. Dr. Seeley is a diplomate of the American Board of Toxicology.

June Weintraub

Dr. June Weintraub is Manager of Water, Noise and Medical Cannabis Regulatory Programs for the San Francisco Department of Public Health. She received her Doctoral degree from Harvard School of Public Health; her B.S. and M.S. in civil engineering are both from Tufts University. Dr. Weintraub is an epidemiologist and has current certifications as a California Registered Environmental Health Specialist, Cross Connection Control Specialist, and Backflow Assembly Tester. She has developed a strong program of research, education and collaboration with San Francisco's drinking water utility to collaboratively address diverse issues related to drinking water including water security, quality, allocation, reuse, conservation and sustainability. She also collaborates with the water quality laboratory, which stays on the cutting edge of analytical techniques and monitoring protocols. Dr. Weintraub was a principal collaborator in the development and implementation of San Francisco's regulatory program for onsite alternate water source systems, a program anticipated to save millions of gallons of potable water by allowing the safe use of alternate water sources for non-potable uses such as toilet flushing and landscape irrigation. She was Leader for the Public Health Surveillance component for a multi-year grant from the Environmental Protection Agency for water security. She has researched groundwater quality in Massachusetts, irrigation water conservation methods, the use of chloramine for drinking water disinfection, and the presence of legionella in building water systems. Dr. Weintraub does not currently receive any external funding for her work. Dr. Weintraub has worked closely with federal, state and local agencies and community-based organizations to reach consensus on scientific, policy, planning and health equity issues. She has served on several advisory committees including the U.S. EPA's National Drinking Water Advisory Council, and she has served as peer reviewer for manuscripts under consideration by journals such as the Journal of American Medical Association, Chemosphere and Environmental Health Perspectives. She has authored numerous peer-reviewed papers, monographs, book chapters and articles in general readership.

Mark Wiesner

Dr. Mark R. Wiesner holds the James L. Meriam Chair in Civil and Environmental Engineering at Duke University where he has appointments in the Pratt School of Engineering and the Nicholas School of Environment. He serves as Director of the National Science Foundation's Center for the Environmental Implications of NanoTechnology (CEINT). Dr. Wiesner's research in the area of environmental nanotechnology, examines the application of nanotechnologies for environmental quality control and initiated a consideration of the possible environmental implications of nanomaterials. He co-edited/authored the book "Environmental Nanotechnologies" and serves as Associate Editor of the journals Nanotoxicology and Environmental Engineering Science. Professor Wiesner also pioneered research in area of applications of low-pressure membranes to water treatment. He co-edited and -authored the book "Water Treatment Membrane Process," served as the founding Chair of the American

Water Works Association's Membrane Research Committee and serves on the editorial board of the journal *Desalination*. Professor Wiesner is a Fellow of both the American Association for the Advancement of Science and the American Society of Civil Engineers. Before joining the Duke University faculty in 2006, Professor Wiesner was a member of the Rice University faculty for 18 years where he held appointments in the Departments of Civil and Environmental Engineering and Chemical Engineering and served as Associate Dean of Engineering, and Director of the Environmental and Energy Systems Institute. Prior to working in academia, Dr. Wiesner was a Research Engineer with the French company the Lyonnaise des Eaux, in Le Pecq, France, and a Principal Engineer with the Environmental Engineering Consulting firm of Malcolm Pirnie, Inc., White Plains, NY. Wiesner received the 1995 Rudolf Hering medal from the American Society of Civil Engineers and the 2004 Frontiers in Research Award from the Association of Environmental Engineering and Science Professors. In 2004 Dr. Wiesner was also named a "de Fermat Laureate" and was awarded an International Chair of Excellence at the Chemical Engineering Lab of the French Polytechnic Institute and National Institute for Applied Sciences in Toulouse, France. Wiesner was the 2011 recipient of the Clarke Water Prize for his work in improving water quality through advancements in membrane and nanotechnology research. He is a past President of the Association of Environmental Engineering and Science Professors (AEESP).

Lloyd Wilson

Dr. Wilson in 1995 received a Ph.D. in Environmental Health & Toxicology from the SUNY Albany School of Public Health (SPH) and has more than twenty-five years of public health experience evaluating and mitigating human exposure to chemicals in the environment. Dr. Wilson is the coordinator of special projects and research for the Bureau of Water Supply Protection in the New York State Department of Health (DOH). His work is focused on traditional and emerging public water supply contaminants such as harmful algal blooms, pharmaceuticals, personal care products, PCBs and 1,4-dioxane. He also has responsibilities for issues related to source water protection including climate change adaptation. In addition to his DOH duties, Dr. Wilson is an Assistant Professor at the SPH where he teaches as well as serves on dissertation and thesis committees. He has published peer reviewed literature and serves on many drinking water committees at the national (e.g. ASDWA), regional (e.g. New England Water Interstate Water Pollution Prevention and Control Commission) and state/local (e.g. NYS Water Management Advisory Council) level. He has helped to organize regional forums/conferences and has been an invited speaker to several different public forums. His work has been supported by both internal and external funds, and current external funding for two projects comes from the CDC (private water supplies, pharmaceuticals in private supplies from on-site waste water systems) and for one other project funding is from the US EPA (PCBs in Hudson River Drinking Water Supplies). In 2013 he served on several of the US EPA Technical Expert Panels on Hydraulic Fracturing and drinking water, and in 2007 he served on the US EPA Expert Panel on the Chemical Contaminant Candidate List (CCL3).